

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants : Robert R. RICCI et al.                      Group Art Unit: 3651  
Appln. No. : 10/624,649                                      Examiner: Douglas A. Hess  
Filed : July 23, 2003                                      Confirmation No.: 6899  
For : FEEDER LOAD AUTOMATION SYSTEM AND METHOD OF USE

**APPEAL BRIEF UNDER 37 C.F.R. §41.37**

Commissioner for Patents  
United States Patent and Trademark Office  
Customer Service Window, Mail Stop Appeal Brief-Patents  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir:

This appeal is from the Examiner's rejection of claims 1-18 as set forth in the Office Action dated May 26, 2006. A Notice of Appeal and the associated fee under 37 C.F.R. §41.20(b)(1) were submitted on August 25, 2006. Payment of the requisite fee under 37 C.F.R. §41.20(b)(2) is submitted herewith. No additional fee is believed to be required for filing the instant Appeal Brief. However, if extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required therefor are hereby authorized to be charged to Deposit Account No. 19-0089.

**(I) REAL PARTY IN INTEREST**

The real party in interest is Lockheed Martin Corporation, assignee of the entire interest in the above-identified application by an assignment recorded in the U.S. Patent and Trademark Office on July 23, 2003 at Reel 014324 and Frame 0903.

**(II) RELATED APPEALS AND INTERFERENCES**

The Appellants, their legal representatives and the Assignee are not currently aware of any appeals, interferences, or judicial proceedings that may directly affect or be directly affected by or have some bearing on the Board's decision in this appeal. Attached hereto is a Related Proceedings Appendix showing no related appeals or interferences.

**(III) STATUS OF THE CLAIMS**

In the most recent Office Action dated May 26, 2006, claims 1-18 are pending and rejected. Claims 19-22 were previously canceled. Claims 1-18 are being appealed, and are listed in the "Claims Appendix" attached herewith.

**(IV) STATUS OF THE AMENDMENTS**

No amendments to the claims have been filed subsequent to the Office Action dated May 26, 2006. Formal Drawings were filed on May 30, 2006, after the Office Action dated May 26, 2006. Appellants have not received any communication from the Office regarding the acceptance of, or objection to, the Formal Drawings.

**(V) SUMMARY OF THE CLAIMED SUBJECT MATTER****Independent Claim 1**

By way of non-limiting example, the invention provides for an apparatus comprising a lifting device 122 capable of lifting a pallet of bundled product from a lowered position to a raised position (see page 6, lines 8-24; FIG. 2). The apparatus further comprises a platform 123 positioned on the lifting device holding the pallet of bundled product (see page 6, lines 8-26; FIG. 2). The apparatus further comprises a head mechanism 124 having a holding device 126 for lifting a top layer of bundled product in a first orientation from the pallet to provide a separation space between the top layer of bundled product and a next, lower layer of bundled product on the pallet (see page 7, lines 3-15; page 9, lines 9-28; FIGS. 2 and 4). The apparatus further comprises a conveyor mechanism 127, extendible into the separation space, which conveys the top layer of product away from the pallet when the top layer of bundled product is lowered thereon (see page 7, lines 11-27; page 10, lines 1-10; FIG 2).

**Independent Claim 13**

By way of non-limiting example, the invention provides for an apparatus comprising means for lifting a pallet of bundled product between a lowered position and a raised position. The structure, material, or acts that correspond to this means plus function recitation includes the lift device 122 and pallet lift conveyor 123, described in the specification at lines 8-26 of page 6. As described therein, the lift device 122 may be any known lift mechanism such as a scissors-type lift mechanism,

pneumatic or hydraulic cylinder/piston assembly, a linear actuator, a chain or belt driven mechanism or the like.

The apparatus of claim 13 further comprises means for providing a separation space between a top layer of the bundled product and an adjacent lower layer of bundled product or the pallet. The structure, material, or acts that correspond to this means plus function recitation includes tilt head 124 and holding mechanism 126, described at lines 3-15 of page 7 and lines 9-28 of page 9 of the specification. As described therein, the holding mechanism 126 may include opposing arms hydraulically, pneumatically or electrically moveable between an open position and a closed position. In another embodiment, the holding mechanism 126 may include vacuum source capable of lifting the top layers of bundles by a suction force.

The apparatus of claim 13 further comprises means for transporting the top layer of the bundled product, in a first orientation, separated from the adjacent lower layer of bundled product or the pallet, to at least one feeding device. The structure, material, or acts that correspond to this means plus function recitation includes the separator/conveyor 127 described at 11-27 of page 7 and lines 1-10 of page 10 of the specification. As described therein, the separator/conveyor 127 includes an arm portion 128 having rollers or other conveying mechanism 129. The arm 128 is designed to extend into the separation space provided by the tilt head and the conveyor mechanism 129 is designed to transport the top layer of bundles onto the staging conveyor 200 (once the top layer of bundles are positioned on the conveyor). The controller "C" may control the separator/conveyor 127, as with the other

components. The arm 128 may be retracted and extended by any known mechanism such as by rotation, sliding, etc.

**(VI) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

(A) Claims 1-18 are rejected under 35 U.S.C. §112, First Paragraph, as based on a disclosure which is not enabling.

(B) Claims 1-3, 8, 13, 14, 16, and 18 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,222,857 issued to Hasegawa.

(C) Claim 7 is rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,222,857 issued to Hasegawa in view of U.S. Patent No. 5,427,252 issued to Teegarden et al.

(D) Claims 9, 10, and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,222,857 issued to Hasegawa in view of U.S. Patent No. 4,119,219 issued to Carlson.

**(VII) ARGUMENTS**

**(A) Claims 1-18 rejected under 35 U.S.C. §112, First Paragraph.**

The rejection of claims 1-18 under 35 U.S.C. §112, First Paragraph, is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

The Examiner asserts in a first passage of the Office Action dated May 26, 2006 ("Office Action") that

The specification and the drawings do not provide enough detail as to how the tilt head 124 is pivotally connected to the pallet lift 123. The current drawing figures show the lift head 124 above and unattached to the platform. Secondly the specification and drawings do not provide any level of detail as to how the separation conveyor 127 moves into the separation space at the platform 123. (See Office Action, page 2, paragraph 2)

The Examiner further asserts in a second passage that

These features are critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). (See Office Action, page 2, paragraph 2)

It appears that the Examiner is applying two different reasons for rejecting the claims under 35 U.S.C. §112, First Paragraph. In the first passage, the Examiner appears to be of the opinion that the disclosure does not sufficiently describe the claimed invention. In the second passage, the Examiner appears to be of the opinion that the claims fail to recite critical features. Appellants respectfully disagree with both positions.

According to MPEP §2164.01, the test for enablement requires that the claimed invention be enabled so that any person skilled in the art can make and use the invention without undue experimentation. *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988). Furthermore, according to MPEP §2164.08, all questions of enablement are evaluated against the claimed subject matter.

Appellants initially submit that the first feature described by the Examiner (i.e., how the tilt head 124 is pivotally connected to the pallet lift 123) is not recited as part of the claimed invention. That is, none of claims 1-18 recite a pivotal connection between the tilt head 124 and the pallet lift 123. As such, the Examiner is rejecting the claims for lacking enablement of a feature that is not claimed. Therefore, the rejection is improper and should be withdrawn.

In any event, Appellants submit that the claimed invention is enabled so that any person skilled in the art can make and use the invention without undue experimentation. More specifically, Appellants submit that this rejection is improper in view of the affidavit evidence attached hereto. In the attached affidavit ("Affidavit"), Mr. Bruce Hanson, an expert in the field of mail integration systems, avers that the disclosure of the invention (i.e., the specification and drawings) would enable one of skill in the art to practice the invention without undue experimentation. The Affidavit does not purport to establish facts which the specification itself does not recite. *In re Buchner*, 929 F.2d 660, 18 USPQ2d 1331 (Fed. Cir. 1991).

In the Affidavit, Mr. Hanson avers that the hinge, as disclosed in the specification, is described in sufficient breadth as to allow one of skill in the art to practice this portion of the invention without undue experimentation. Additionally, Mr.

Hanson avers, amongst other things, that the specification provides enough detail and information as to show (i) how the product is lifted to create a separation space at the platform 123, and (ii) how the separation conveyor 127 moves into the separation space, moves the product to the conveying mechanism and then drops the product onto the conveyor. See, for example, the following passages of the Affidavit:

After reviewing the above documents related to patent application having Serial No. 10/624,649, it is my expert opinion that the disclosure of the invention, as read in its entirety, would provide the level of detail necessary to enable one of skill in the art to make and use the claimed invention without undue experimentation. It is thus my expert opinion that the specification and drawings provide enough detail as to how the tilt head is pivotally connected to the pallet lift, how the separation conveyor moves into the separation space at the platform and unloads the product onto the staging conveyor and how all of the components interrelate and work with each other. (Affidavit, paragraph 9)

It is my expert opinion that although the hinge is shown as a box in Figure 2, one of skill in the art, after reading the disclosure of U.S. application having Serial No. 10/624,649, would know what type of hinge to use with the system. Without any undue experimentation, it is my opinion that one of skill in the art would recognize that a hinge, such as, for example, a pivot slide hinge which allows both pivoting and sliding movement, could be used with the system. (Affidavit, paragraph 14)

In my expert opinion, one of skill in the art would know how to implement the rotary device in view of the Figures and disclosure of U.S. application having Serial No. 10/624,649. As described in the specification at page 6, by way of one example, in a lowered position, the pallet lift conveyor 123 may rotate 90 degrees, if necessary, so that short ends of the bundles on the top layer of bundles on the pallet (placed on the pallet input station 110) will face the staging conveyor 200. This rotation may be effected by a gear system, a belt and gear system or other known mechanisms. These types of rotary



systems are well known in the art and, in my expert opinion, needs no further explanation for one of skill in the art to practice the invention without undue experimentation. (Affidavit, paragraph 19)

It is my expert opinion that one of skill would be able to easily implement the invention after reading the entirety of the disclosure, without undue experimentation. As should be readily understood from Figure 5 and the above noted disclosures, the tilt head can lift product to form the separation space, via a grasping or vacuum mechanism. Once the product is lifted by the tilt head using, for example, the grasping or vacuum mechanism, the separator/conveyor 127 may extend by any known mechanism such as by rotation, sliding, etc. into the separation space. (Affidavit, paragraph 25)

Thus, it is my expert opinion that the specification and drawings are clear and definite and provides one of skill in the art the level of detail as to (i) how to lift the product to create a separation space at the platform 123 (e.g., grasping mechanism or vacuum), and how the separation conveyor 127 moves into the separation space (e.g., conventional mechanism), moves the product to the conveying mechanism and then drops the product onto the conveyor (e.g., rollers). No undue experimentation would be needed to practice these steps. (Affidavit, paragraph 27)

Moreover, Appellants submit that the Examiner is not giving the proper weight to the Affidavit. According to MPEP §716.01(d)

When an applicant timely submits evidence traversing a rejection, the examiner must reconsider the patentability of the claimed invention. The ultimate determination of patentability must be based on consideration of the entire record, by a preponderance of evidence, with due consideration to the persuasiveness of any arguments and any secondary evidence. *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

In the Office Action, the Examiner appears to give no consideration to the statements made in the Affidavit regarding practicing the invention without undue experimentation. Instead of determining patentability based on consideration of the entire record, by a preponderance of evidence, with due consideration to the persuasiveness of any arguments and any secondary evidence, the Examiner seems to be holding Appellants to some artificial higher standard. For example, the Examiner, instead of applying the "undue experimentation" standard, appears to be relying upon some other test for enablement, as demonstrated by the following passages of the Office Action:

*It is the duty of the specification and drawings to provide enough detail for the invention to be clearly understood at the time of filing.* (emphasis in original) (Office Action, page 2)

...

...one can NOT easily understand the interaction of all of the components ...(Office Action, page 6)

...

Once again there is not enough detail for the interaction of all of the parts to work together so that one skilled in the art could reasonably understand how the invention works as disclosed. (Office Action, page 6)

Appellants respectfully submit that clearly, easily, and/or reasonably understanding the invention (or aspects thereof) is not the proper test for enablement. Instead, the test is whether a skilled artisan can make and use the invention without undue experimentation, which is clearly described in MPEP §§2164.01 et seq. Because the Examiner is applying an incorrect standard of patentability, the rejection of claims 1-18 is improper and should be reversed.

Furthermore, because Mr. Hanson avers in at least paragraphs 9, 14-17, 19, 25, 27, and 28 of the above-noted affidavit that the features identified by the Examiner are indeed sufficiently enabled such that a skilled artisan could make and use the invention without undue experimentation, the rejection of claims 1-18 is improper and should be reversed.

Appellants disagree with the Examiner's second assertion, based upon *In re Mayhew*, that the claims fail to recite critical features, and, therefore, are not enabled by the disclosure. Rejections based upon the failure to recite critical features are discussed in MPEP §2164.08(c), which states

A feature which is taught as critical in a specification and is not recited in the claims should result in a rejection of such claim under the enablement provision section of 35 U.S.C. 112. See *In re Mayhew*, 527 F.2d 1229, 1233, 188 USPQ 356, 358 (CCPA 1976). In determining whether an unclaimed feature is critical, the entire disclosure must be considered. Features which are merely preferred are not to be considered critical. *In re Goffe*, 542 F.2d 564, 567, 191 USPQ 429, 431 (CCPA 1976).

Limiting an applicant to the preferred materials in the absence of limiting prior art would not serve the constitutional purpose of promoting the progress in the useful arts. Therefore, an enablement rejection based on the grounds that a disclosed critical limitation is missing from a claim should be made only when the language of the specification makes it clear that the limitation is critical for the invention to function as intended. (emphasis added)

Appellants submit that the features identified by the Examiner are not taught as critical in the specification, and, therefore, not required to be recited in the claims.

The first feature, the connection between the tilt head 124 and the pallet lift conveyor 123, is described in the following passage

The depalletizer subsystem 120 further includes a tilt head 124, which may be hinge mounted to the pallet lift conveyor 123 by a hinge 125 or mounted in another conventional manner. (emphasis added) (Specification, page 7, lines 3-5)

This passage does not teach that the connection between the tilt head 124 and pallet lift conveyor 123 is critical. Instead, the passage teaches away from criticality by describing broad alternatives (i.e., another conventional manner) to the hinge.

The second feature, how the separation conveyor 127 moves into the separation space, is described in the following passage

... the separator/conveyor 127 includes an arm portion 128 having rollers or other conveying mechanism 129. The arm 128 is designed to extend into the separation space provided by the tilt head and the conveyor mechanism 129 is designed to transport the top layer of bundles onto the staging conveyor 200 (once the top layer of bundles are positioned on the conveyor). The controller "C" may control the separator/conveyor 127, as with the other components. The arm 128 may be retracted and extended by any known mechanism such as by rotation, sliding, etc. (emphasis added) (Specification, page 10, lines 1-10)

This passage does not teach that how the separation conveyor 127 moves into the separation space is critical. Instead, the passage teaches away from criticality by disclosing that the arm 128 may be retracted from and extended into the separation space by any known mechanism. Therefore, the features identified by the

Examiner in Paragraph 2 of Page 2 of the Office Action are not taught as critical in the specification. Accordingly, claims 1-18 do not lack enablement for failure to recite critical features.

**(B) Claims 1-3, 8, 13, 14, 16, and 18 rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,222,857 issued to Hasegawa.**

*Claims 1-3 and 8 rejected under 35 U.S.C. §102(b)*

The rejection of claims 1-3 and 8 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

To anticipate a claim, each and every element as set forth in the claim must be found, either expressly or inherently described, in a single prior art reference. MPEP §2131. Appellants submit that Hasegawa does not show each and every feature of the claimed invention.

Independent claim 1 recites, in pertinent part,

...a head mechanism having a holding device for lifting a top layer of bundled product in a first orientation from the pallet to provide a separation space between the top layer of bundled product and a next, lower layer of bundled product on the pallet; and  
a conveyor mechanism, extendible into the separation space, which conveys the top layer of product away from the pallet when the top layer of bundled product is lowered thereon.

Hasegawa does not disclose each and every one of these features. This is evidenced in the attached Affidavit of Mr. Hanson, and discussed in detail below.

In Hasegawa, as shown in FIG. 2, the apparatus includes an unloading zone 1, a loading zone 2 juxtaposed to it, and a table 5 which can reciprocate above and between the zones 1 and 2 along a rail 4 on a main framework 3. The unloading zone 1 is provided with a conveyor 6 for charging a pallet P1 carrying a stack of layers of a load W, and a lift 7 for lifting the pallet P1 to raise the load W layer by layer to a level of height corresponding to that of the reciprocating table 5. The reciprocating table 5 includes a multiplicity of carriage rollers 10 constituting a roller conveyor, and is adapted to pick up the load layer by layer in the unloading zone 1 and transfer it to the loading zone 2. Specifically, stoppers 23 and 25 are positioned to maintain the top layer of the load in a stationary position while the carriage forces itself underneath a top layer. The carriage then picks up the load, by advancing underneath the load, and transports the load to the conveyor. The carriage does not provide a separation space so that a conveyor can move the load. Also, the elements 23 and 25 are merely stoppers and are not designed, nor are they capable of picking up a load to create a separation space.

To support the above interpretation, Mr. Hanson, in his expert opinion, avers that Hasagawa shows carriage rollers 10 which are advanced toward the product. As the carriage rollers 10 advance toward the top layer of the product, as shown in FIG. 4b, the carriage rollers 10 will begin to move underneath the product, while the stop arm 23 prevents movement of the product. The top layer of product, however, is not separated from a lower layer or product, nor is the stop arm a tilt head. As the carriage rollers 10 further advances, a single layer of the product will be moved onto the carriage rollers 10 (Affidavit, paragraph 31).

To accomplish this, the top carriage rollers 10a abut on the adjacent side of the uppermost layer of the load W, and the load is held between the upper stopper 23 and the top carriage rollers 10 and is picked up by the friction force of the top carriage rollers 10a rotating clockwise (Hasegawa col. 6, lines 3-13). However, there simply is no separation space between the top layer of bundled product and a next, lower layer, nor is there any device which can provide such a feature. Instead, the carriage rollers 10 advance underneath the top layer by actually forcing itself underneath the top layer of product onto the carriage rollers 10, and then transporting the top layer away from the stack.

According to Mr. Hanson, in his expert opinion, the elements 23 and 25 are not designed to be a head mechanism, nor are these elements designed to lift the top layer of product to create a separation space (Affidavit, paragraph 32). After a careful reading of the Hasagawa reference, it is Mr. Hanson's opinion that element 23 is a lower stopper and element 25 is an aligning stopper. These stoppers are used to hold the product or load, W, while the carriage rollers advance underneath the topmost layer, via a frictional force. According to Mr. Hanson, one of skill would readily recognize that the stoppers 23 and 25 are not designed to pick the load up to create a separation space, nor is this possible with the use of the stoppers. For example, stopper 23 is mounted in a linear configuration to the rail 4. This would prevent the stopper from being movable or rotatable to lift the load in order to create a separation space.

Thus, it is readily apparent that Hasegawa does not include a head mechanism having a holding device for lifting a top layer of bundled product in a first

orientation from the pallet to provide a separation space between the top layer of bundled product and a next, lower layer of bundled product on the pallet. Instead, Hasegawa shows the carriage rollers 10 merely moving underneath the stack of product. Appellants submit that the carriage rollers are actually akin to the claimed conveyor mechanism, and that there is no holding device, in Hasegawa, to provide a separation space.

The Examiner, however, asserts that Hasegawa shows that "the conveyor rollers 10 do move into a separation space created by the lift mechanism 23 and 25 as recited in claim 1" (Office Action, page 6). Appellants respectfully disagree. In Hasegawa, the lower stopper 23 and aligning stopper 25 are not capable of lifting a top layer of bundled product in a first orientation from the pallet to provide a separation space between the top layer of bundled product and a next, lower layer of bundled product on the pallet, as recited in claim 1. The lower stopper 23 and aligning stopper 25 merely hold the top layer of the load W in place while the carriage rollers 10a pick up the layer of the load W by friction force. Therefore, Hasegawa does not disclose each and every element of claim 1, and does not anticipate claims 1, 3, and 8.

*Claims 13, and 16 rejected under 35 U.S.C. §102(b)*

The rejection of claims 13 and 16 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

Independent claim 13 recites, in pertinent part,



... means for providing a separation space between a top layer of the bundled product and an adjacent lower layer of bundled product or the pallet;

means for transporting the top layer of the bundled product, in a first orientation, separated from the adjacent lower layer of bundled product or the pallet, to at least one feeding device.

Hasegawa does not disclose these features.

According to MPEP §2181, a claim will be interpreted to invoke 35 USC §112, Sixth Paragraph, when it meets the following three prong analysis: (1) the claim must use the phrase “means for”; (2) the “means for” must be modified by functional language; and (3) the “means for” must not be modified by sufficient structure, material, or acts for achieving the specified function. Appellants respectfully submit that the above-noted features of claim 13 meet all three prongs of the analysis. Therefore, the above-noted features of claim 13 should be interpreted in light of 35 USC §112, Sixth Paragraph.

According to MPEP §2183, to make a prima facie case that a prior art element is an equivalent to a recitation under 35 USC §112, Sixth Paragraph, the Examiner must find a prior art element that: (1) performs the function specified in the claim; (2) is not excluded by any explicit definition provided in the specification for an equivalent; and (3) is an equivalent of the means-plus function limitation. If the Examiner finds such an element, to establish a prima facie case, the Examiner must further provide an explanation and rationale in the Office action as to why the prior art element is an equivalent. Appellants respectfully submit that the Examiner has failed to establish a prima facie case with respect to the above-noted elements of claim 13 because the Examiner has not provided any explanation or rationale as to why the

identified elements of Hasegawa are equivalents. Therefore, the rejection of claim 13 is improper and should be reversed.

In any event, Appellants submit that the stoppers 23, 25, carriage rollers 10, or any other feature of Hasegawa, do not expressly or inherently perform a function identical to that of the means element, nor are the carriage rollers 10 an equivalent structure to that disclosed in the subject specification. *In re Donaldson Company, Inc.*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994). MPEP § 2182. The carriage rollers 10 do not hold and lift the product to provide a separation between the products so that a conveyor can be placed therebetween. The carriage rollers 10 only move underneath the single layer of product, but they do not hold and separate the top layer from a lower layer, in order for a conveyor to move the product. In fact, the carriage rollers 10 would be equivalent in structure and function only to the means for transporting the top layer of the bundled product, in a first orientation, separated from the adjacent lower layer of bundled product or the pallet, to at least one feeding device.

As to the structure of the carriage rollers 10, this structure also is not equivalent to that of the claimed invention. The specification clearly describes the means for providing a separation space between a top layer of the bundled product and an adjacent lower layer of bundled product or the pallet as either a vacuum head or a pair of opposing arms. None of these structures are close to that of the carriage rollers. Therefore, Hasegawa does not disclose each and every element of claim 1, and does not anticipate claims 13 and 16.

Claim 14 rejected under 35 U.S.C. §102(b)

The rejection of claim 14 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject the claim should be reversed, and the application should be remanded to the Examiner.

Claim 14 depends from allowable independent claim 13, and additionally recites the separation means drops the top layer of bundled product onto the transporting means.

Hasegawa does not disclose these features. In Hasegawa, the carriage rollers 10 move underneath the top layer of product by way of friction. Thus, the top layer of product is not dropped onto the transporting means, as recited in the claimed invention. Therefore, Hasegawa fails to disclose each and every feature of claim 14.

Claim 18 rejected under 35 U.S.C. §102(b)

The rejection of claim 18 under 35 U.S.C. §102(b) is in error, the decision of the Examiner to reject the claim should be reversed, and the application should be remanded to the Examiner.

Claim 18 depends from allowable independent claim 13, and additionally recites rotating the bundled product into the first orientation from a second orientation prior to the separating.

Hasegawa does not disclose these features. Hasegawa only shows a single orientation of the product, and does not describe a second orientation. Moreover, Hasegawa does not disclose rotating the product in any manner prior to separating. Therefore, Hasegawa does not disclose rotating the bundled product into the first orientation from a second orientation prior to the separating, as recited in claim 18.

**(C) Claims 7 rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,222,857 issued to Hasegawa in view of U.S. Patent No. 5,427,252 issued to Teegarden et al.**

The rejection of claim 7 under 35 U.S.C. §103(a) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

As discussed above, Hasegawa does not disclose a head mechanism having a holding device for lifting a top layer of bundled product in a first orientation from the pallet to provide a separation space between the top layer of bundled product and a next, lower layer of bundled product on the pallet. Teegarden does not compensate for the deficiencies of Hasegawa with respect to the claimed invention. That is, Teegarden does not teach or suggest a head mechanism having a holding device for lifting a top layer of bundled product in a first orientation from the pallet to provide a separation space between the top layer of bundled product and a next, lower layer of

bundled product on the pallet. Therefore, the rejection is improper because the applied references do not teach or suggest each and every feature of the claimed invention.

**(D) Claims 9, 10, and 17 rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,222,857 issued to Hasegawa in view of U.S. Patent No. 4,119,219 issued to Carlson.**

*Claims 9 and 10 rejected under 35 U.S.C. §103(a)*

The rejection of claims 9 and 10 under 35 U.S.C. §103(a) is in error, the decision of the Examiner to reject these claims should be reversed, and the application should be remanded to the Examiner.

Appellants note that U.S. Patent No. 4,119,219 is issued to Marschke, not to Carlson. The PTO-892 form dated October 21, 2005 lists both U.S. Patent No. 4,119,219 issued to Marschke, and U.S. Patent No. 3,937,336 issued to Carlson. Therefore, the rejection is improper because it is unclear which prior art references are being applied. For this Appeal, Appellants will assume that the rejection is based upon Hasegawa in view of U.S. Patent No. 3,937,336 issued to Carlson.

As discussed above, Hasegawa does not disclose a head mechanism having a holding device for lifting a top layer of bundled product in a first orientation from the pallet to provide a separation space between the top layer of bundled product and a next, lower layer of bundled product on the pallet, as recited in claim 1. Carlson does not compensate for the deficiencies of Hasegawa with respect to the claimed invention. Instead, Carlson shows a conveying system that joins a conveyor between

can-filling and can-making machines. Carlson does not teach or suggest lifting a top layer of bundled product. Specifically, Carlson does not teach or suggest a head mechanism having a holding device for lifting a top layer of bundled product in a first orientation from the pallet to provide a separation space between the top layer of bundled product and a next, lower layer of bundled product on the pallet, as recited in claim 1.

Moreover, claim 9 additionally recites a distribution conveyor downstream from the conveyor mechanism, the distribution conveyor including at least one diverter for diverting the bundled product to one of a plurality of input feeders. The applied references do not teach or suggest these features. The Examiner admits that Hasegawa does not disclose this feature, but asserts that Carlson teaches the feature. Appellants respectfully disagree.

Carlson shows a conveying system that joins a conveyor between can-filling and can-making machines. The system includes a diverter gate for engaging a supplemental feed conveyor for supplying cans to the can filling machine. Carlson does not however, show a diverter for diverting bundled product. Instead, Carlson shows a diverter for diverting individual cans. Moreover, Carlson does not teach or suggest diverting bundled product to one of a plurality of input feeders. In fact, Carlson does not show a plurality of input feeders. Therefore, neither Carlson nor Hasegawa teach or suggest the features recited in claim 9.

Therefore, the rejection is improper because the applied references do not teach or suggest each and every feature of the claimed invention.

*Claim 17 rejected under 35 U.S.C. §103(a)*

The rejection of claim 17 under 35 U.S.C. §103(a) is in error, the decision of the Examiner to reject the claim should be reversed, and the application should be remanded to the Examiner.

Appellants note that U.S. Patent No. 4,119,219 is issued to Marschke, not to Carlson. The PTO-892 form dated October 21, 2005 lists both U.S. Patent No. 4,119,219 issued to Marschke, and U.S. Patent No. 3,937,336 issued to Carlson. Therefore, the rejection is improper because it is unclear which prior art references are being applied. For this Appeal, Appellants will assume that the rejection is based upon Hasegawa in view of U.S. Patent No. 3,937,336 issued to Carlson.

As discussed above, Hasegawa does not disclose means for providing a separation space between a top layer of the bundled product and an adjacent lower layer of bundled product or the pallet, as recited in claim 13. Carlson does not compensate for the deficiencies of Hasegawa with respect to the claimed invention. That is, Carlson does not teach or suggest means for providing a separation space between a top layer of the bundled product and an adjacent lower layer of bundled product or the pallet. Therefore, the rejection is improper because the applied references do not teach or suggest each and every feature of the claimed invention.

### **Conclusion**

In view of the foregoing remarks, Appellants submit that claims 1-18 are patentably distinct from the prior art of record and are in condition for allowance. Accordingly, Appellants respectfully request that the Board reverse the Examiner's

rejection of claims 1-18, and remand the application to the Examiner for withdrawal of the above-noted rejections.

Respectfully submitted,  
Robert R. RICCI et al.

A handwritten signature in black ink, appearing to read 'Andrew M. Calderon', written over a horizontal line.

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**(VIII) CLAIMS APPENDIX**

The following is a listing of the claims involved in the appeal.

1. (original) An apparatus, comprising:

a lifting device capable of lifting a pallet of bundled product from a lowered position to a raised position;

a platform positioned on the lifting device holding the pallet of bundled product;

a head mechanism having a holding device for lifting a top layer of bundled product in a first orientation from the pallet to provide a separation space between the top layer of bundled product and a next, lower layer of bundled product on the pallet; and

a conveyor mechanism, extendible into the separation space, which conveys the top layer of product away from the pallet when the top layer of bundled product is lowered thereon.

2. (original) The apparatus of claim 1, wherein the bundled product is mail objects.

3. (original) The apparatus of claim 2, wherein the mail objects are flats.

4. (original) The apparatus of claim 1, wherein the head mechanism is a tilt head mechanism and the holding device is one of a vacuum source to produce a

suction force and a pair of opposing arms moveable between a first position and a second, closer position to lift and lower the top layer of bundled product.

5. (original) The apparatus of claim 1, wherein the platform is rotatable to orient the bundled product into the first orientation from a second orientation.

6. (original) The apparatus of claim 5, further comprising a control system for controlling at least the lifting device, the platform, the head mechanism and the conveyor mechanism.

7. (original) The apparatus of claim 1, further comprising one of a bar code reader and optical recognition system for reading labels on the bundled product.

8. (original) The apparatus of claim 1, further comprising an input station, adjacent to the platform when in a lowered position, wherein at least one of the input station and the platform include a conveyor device which conveys the pallet from the input station to the platform when the platform is in a lowered position.

9. (original) The apparatus of claim 1, further comprising a distribution conveyor downstream from the conveyor mechanism, the distribution conveyor including at least one diverter for diverting the bundled product to one of a plurality of input feeders.

10. (original) The apparatus of claim 9, wherein the at least one diverter is controlled by a controller and the distribution conveyor is positioned substantially orthogonal to the conveyor mechanism.

11. (original) The apparatus of claim 1, wherein the lift device includes a sensor or actuating system to determine a height of the lift mechanism and a load on the pallet.

12. (original) The apparatus of claim 1, further comprising a pallet stacker, the platform including a conveying mechanism which places empty pallets on the pallet stacker when the platform is in a lowered position.

13. (original) An apparatus, comprising:  
means for lifting a pallet of bundled product between a lowered position and a raised position;  
means for providing a separation space between a top layer of the bundled product and an adjacent lower layer of bundled product or the pallet;  
means for transporting the top layer of the bundled product, in a first orientation, separated from the adjacent lower layer of bundled product or the pallet, to at least one feeding device.

14. (original) The apparatus of claim 13, wherein the separation means drops the top layer of bundled product onto the transporting means.

15. (original) The apparatus of claim 13, wherein the separation means is one of a vacuum and moveable opposing arms capable of lifting the top layer of bundled product.

16. (original) The apparatus of claim 13, wherein the bundled product is a bundle of flats.

17. (original) The apparatus of claim 13, wherein the transportation means includes:

a conveyor positionable within the separation space; and

a distribution conveyor having diverters which are moveable between a first position and a second position, the diverters capable of diverting the bundled product to any of the at least one feeding device based on information associated with the bundled product, wherein the conveyor conveys the bundled product away from the separation means and towards the distribution conveyor.

18. (original) The apparatus of claim 13, further comprising rotating the bundled product into the first orientation from a second orientation prior to the separating.

Claims 19-22 (canceled)

**(IX) EVIDENCE APPENDIX**

This section lists evidence submitted pursuant to 37 C.F.R. §§1.130, 1.131, or 1.132, or any other evidence entered by the Examiner and relied upon by Appellant in this appeal, and provides for each piece of evidence a brief statement setting forth where in the record that evidence was entered by the Examiner. Copies of each piece of Evidence are provided as required by 37 C.F.R. §41.37(c)(1)(ix).

| NO. | EVIDENCE  | BRIEF STATEMENT SETTING FORTH WHERE IN THE RECORD THE EVIDENCE WAS ENTERED BY THE EXAMINER  |
|-----|---|---|
| 1   | Declaration Under 37 CFR 1.132 of Bruce Hanson. | Initially submitted on April 18, 2006 concurrent with a Request for Reconsideration under 37 CFR 1.116. Denied entry by the Examiner in an Advisory Action dated April 26, 2006. Entered as part of a submission under 37 CFR 1.114 on May 3, 2006. |

**(X) RELATED PROCEEDINGS APPENDIX**

Pursuant to 37 C.F.R. §41.37(c)(1)(x) copies of the following decisions rendered by a court or the Board in any proceeding identified above in the Related Appeals and Interferences section.

| NO. | TYPE OF PROCEEDING | REFERENCE NO. | DATE |
|-----|--------------------|---------------|------|
| 1   | N/A                | N/A           | N/A  |